# SIX HUNDRED YEARS OF MEDICINE IN VIENNA\*

#### A HISTORY OF THE VIENNA SCHOOL OF MEDICINE

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THE University of Vienna, Austria, which is celebrating the 600th anniversary of its founding, has been the alma mater of many of the members of this audience. In pausing on this occasion to look back over the centuries from the vantage point of 1965, it may be wise not just to reminisce nostalgically about the good old times, but rather to examine critically the kaleidoscopic events of these centuries.

In so doing, we may not only recall the influences to which we were exposed during our formative years, and thus expose the roots of our intellectual development, of our motivations, beliefs, and prejudices, but we may also become aware of some of those related and causal factors in the political, economic, and cultural world of Austria and Europe that shaped the history of the Vienna Medical School.

From such a review we may derive insight, understanding, and a keener appreciation of those factors and forces that over the years have tended either to inhibit or to further the growth of learning in institutions such as the Vienna Medical School. The lessons learned should help us in the search for direction for future goals for ourselves and our younger friends here and abroad.

On March 12, 1365, Duke Rudolf IV of Austria (Figure 1), bynamed the Founder (*der Stifter*), obtained permission from Pope Clement VI to establish a university in Vienna. In the words of the papal charter, this act converted the ancient School of St. Stephen's "into a university according to the ordinances and customs observed first at Athens, then at Rome, and after that at Paris."

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From its inception this new university had a bona fide medical faculty. However, as the historian Josef von Aschbach stated 100 years ago, ". . . it was not much of a medical school during the first 400 years of its existence." In the beginning, the reason was the sorry state of medicine in general in the later middle ages and the paralyzing effect of scholasticism on all learning. Later on, in the 16th and 17th centuries, it was the lack of interest in any scientific endeavors in the war-torn and plague-ridden Vienna of that epoch.

In those early days of the medical school, teaching consisted merely in the reading to the students of some ancient treatises prescribed by the authorities of the university. There were three masters to whom the texts were assigned by drawing lots. The books used were the "ars parva" by the Greco-Roman physican Galen, written in the second century A.D., and the "Canon" of Avicenna and the "liber medicinalis" by Rhazes, both 10th-century Persian-Arabian physician-philosophers. These writings were based essentially on the works of Hippocrates. Criticism or deviations from these doctrines were in-admissible.

The entire study of medicine consisted in memorizing the teachings of Galen and of his commentators (Figure 2). After 2 years of study the successful student would receive his B.A. without ever having seen a patient or the dissection of a body.

The contact of the student with patients began in the third year when he had to accompany a practicing physician on his rounds, watching his master's way of observing the patient, inspecting the ever-present urinal, giving long-winded discourses on the nature of disease and, finally, composing the traditionally very complicated prescriptions. After 2 to 3 years of apprenticeship the bachelor of arts was entitled to obtain a doctor's degree by giving a dissertation on one of the aphorisms of Hippocrates.

The faculty consisted of all the doctors licensed to practice in Vienna and its suburbs. From the early records it becomes apparent that its members were mainly concerned with establishing a professional guild capable of eliminating competition by quacks and foreign graduates and enforcing their more or less important claims, such as that for a privileged spot in the Corpus Christi procession (Fronleichnams-Prozession) or exemption from city taxes. They would resolve not to treat any pharmacist who had supplied drugs to a quack, or a patient



Fig. 1. Duke Rudolf IV, der Stifter, 1339-1365.



Fig. 2. Teaching of medicine in the 15th century.

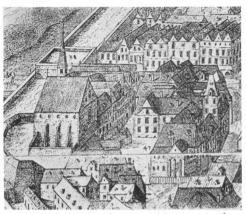


Fig. 3. University Quarter of Vienna in the 14th century.



Fig. 4. Gerard van Swieten, 1700-1772.

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who had previously been under the care of a nonlicensed healer. Since all other faculties had patron saints, the medical faculty chose two saints, St. Cosmas and St. Damian, as their own protectors and established for them an annual solemn mass at St. Stephen's.

The members of the faculty considered surgical procedures as being below the dignity of a learned doctor and they left cataract, hernia, and stone operations to the migrant healing artists. This attitude prevailed in Vienna at a time when surgery was already developing into a highly respected profession and an important branch of teaching at the faculties of Padua in Italy and Montpellier in France.

The university buildings and the student quarters were located in a cramped area of the city (Figure 3). Later this district had to be walled off in order to prevent the frequent vicious fights between the unruly students and the hostile burghers of Vienna.

Even at the time when the Renaissance and humanism changed the course of Western civilization (around 1500) and produced revolutionary figures on the medical scene, such as Vesalius in Padua, Guy de Chauliac in Montpellier, Lanfranc in Paris, Paracelsus in Basel and Harvey in London, no fresh breeze penetrated the stagnant atmosphere of the medical faculty at Vienna. Here economic and political conditions were at a desperately low level as the result of the religious wars marked by wanton destruction of life, property, and cultural goods.

In 1629, in line with the pious spirit of that time, the university was put under the authority of the College of Jesuits by Emperor Ferdinand II. Under this oppressive regimen the medical faculty remained in its state of lethargy and standstill. Foreign students did not come to Vienna and wealthy Austrians sent their sons abroad to study at the flourishing universities of Italy and France. In 1703 an imperial order suspended the conferral of medical degrees in Vienna because of the poor quality of teaching. The Medical School had reached its lowest status.

During the 17th century only a few members of the faculty are noteworthy for their activities. Among them were Managetta and de Sorbait.

Johann Wilhelm von Managetta, personal physician to three emperors, a man of wide educational background, took vigorous measures to improve the deplorable state of sanitation in Lower Austria and conceived, in an age dominated by the most absurd superstitions, sensible regulations to combat the disastrous epidemics ravaging the

country. In Vienna he made himself immortal by inventing the Wiener Trankel, a laxative that is still popular there.

Paul de Sorbait, who succeeded Managetta and remained chief of the medical faculty for 25 years, finally managed, against the stubborn resistance of the College of Jesuits, to introduce the teaching of anatomy, which was already well advanced in other medical schools.

The delay in upgrading the medical school in the late 17th and early 18th centuries is difficult to understand. This was an epoch of political and military glory for Austria following the defeat of the Turkish invaders and the victory in the Spanish Wars of Succession. Those were the days of feverish construction of magnificent baroque palaces and churches and of resplendent festivities at the courts of the emperor and the high aristocracy. However, the esteem for university teachers was very low in the same influential circles, and the salaries offered were so inadequate that no man of distinction sought these positions.

It was Empress Maria Theresa who changed this situation radically after her ascendance to the throne in 1740. She must have been painfully aware of the deplorable level of medicine in Vienna and felt the need for vigorous measures to change the conditions. It will be remembered that Maria Theresa's Austria dominated not only a great part of the ancient Holy Roman Empire but also Italy and the Netherlands, two countries in which medical schools were flourishing at that time. They were the regions from which a regeneration of Austrian medicine had to come.

In Italy, around the year 1600, at the University of Padua, Montanus had revived the Hippocratic method of teaching medicine at the bedside. Italian physicians introduced this system to the Netherlands where similar ideas, propagated by the great British clinician Thomas Sydenham, had fallen on fertile ground. In Holland, at the University of Leyden, Hermann Boerhaave was professor of medicine. He was an enthusiastic follower of Montanus' and Sydenham's precepts and had succeeded in making the medical school of Leyden the leading institution of his time by teaching according to the three basic rules of Hippocrates: use common sense instead of unfounded speculations; observe the patient carefully; and rely upon the healing power of nature. The empress turned for advice to Boerhaave who recommended his outstanding disciple, Gerard van Swieten, for the dual position of

personal physician to the empress and of protomedicus in charge of medical education in Austria (Figure 4).

Van Swieten's appointment, almost 400 years after the founding of the university, marks the actual beginning of the Vienna Medical School as one of the leading institutions of its kind.

Van Swieten started by removing the obstructive influence of the College of Jesuits, an action that finally made possible systematic instruction in anatomy with regular dissections. The decisive impact of this innovation upon the level of medical education can hardly be realized today. Van Swieten also created the first teaching hospital, even though a modest one, with beds for six males and six females, in the old Burgerspital. He also added to the curriculum the teaching of obstetrics and eye diseases, and appointed another pupil of Boerhaave's, Anton de Haen, as professor of medicine and chief of the new clinic.

De Haen, a devoted teacher, created a clinical school in which new practices were taught, such as attention to all the qualities of the pulse, the taking of a thorough history, and the use of the thermometer. He also laid the very foundation for meaningful clinical investigation by introducing the keeping of detailed case records. De Haen tried to ban the ridiculous polypharmacy customary in the 17th and 18th centuries, and to replace it with diets and hygienic regimes. His teachings had a lasting influence upon the therapeutic orientation of the Vienna medical school, which henceforth required establishment of an exact diagnosis prior to the institution of therapy, and favored a sober and critical approach to any kind of treatment.

It is regrettable that de Haen, although outstanding as a teacher, was too conservative and opinionated to recognize new discoveries; he failed to see the merits of smallpox vaccination or of the most important diagnostic advance of his period: the work of Leopold Auenbrugger (Figure 5). Auenbrugger had invented the method of diagnosing chest disorders by percussion and had described it in a little book *Inventum Novum* in 1761. However, when the influential de Haen belittled this strange new technique of knocking with fingers at the patient's chest and refused to introduce it in his clinic, the whole faculty followed suit and the art of percussion was officially buried. For many years it was practiced only by Auenbrugger and his friends, among them de Haen's successor, Maximilian Stoll. In order to be accepted, percussion had to wait 47 years until Corvisart, Napoleon's



Fig. 5. Joseph Leopold von Auenbrugger, 1722-1809.



Fig. 6. Joseph II, Emperor of Austria, 1780-1790.

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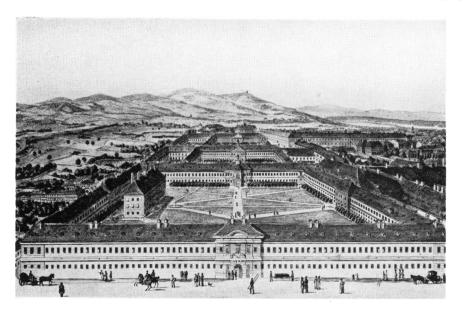


Fig. 7. Allgemeines Krankenhaus in Vienna, about 1800.

personal physician, published a French translation of Auenbrugger's book with favorable comments. Only then was percussion acclaimed as the first real advance in physical diagnosis since the times of Hippocrates. Auenbrugger, incidentally, never received an appointment to the teaching staff of the faculty.

The rise of the Vienna Medical School received a decisive impulse from Emperor Joseph II (Figure 6). He took probably more personal interest in questions of public health and of medical education than any ruler of a large country has ever done before or after him. The creation of the Vienna General Hospital (das Allgemeine Krankenbaus shown in Figure 7) was Emperor Joseph's favorite personal project. It was destined to become one of the most famous medical institutions of the civilized world and the home for the Vienna Medical School during its best period. A decision that also had great impact on teaching and studying of medicine in Vienna was Emperor Joseph II's Act of Tolerance, which granted for the first time the admission of Jewish students to the University. This decree not only opened the medical career to a new group of eager and talented students from many parts of Europe, it also changed the composition of the faculty during the following 150 years. During this long period Jewish

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physicians and investigators made major contributions to medicine and thus enhanced the name of the Vienna Medical School.

The leading physician during Emperor Joseph's regime was Johann Peter Frank. He expounded the then novel idea of the responsibility of the state for maintaining the health of its population. His book, titled *Medizinische Polizey*, was the first comprehensive text on preventive medicine and public hygiene. During his many active years in Vienna he brought about an intimate and fertile relationship with the then eminent Italian medical schools. In the *Allgemeine Krankenhaus*, of which he was director, he founded a pathologic-anatomical museum, and he introduced as an important innovation the isolation of patients with infectious diseases.

The 60-year period between 1745, when van Swieten started his reforms, and 1805, when Johann Peter Frank was forced to resign his position, was an exciting era of progress, which historians later designated the First Vienna Medical School.

This memorable epoch was followed by an abrupt decline, not due to any lack of men of ability but solely because of the oppressive political atmosphere that had settled upon Vienna and Austria. This was the time of all-out reaction against the liberal spirit that had been promoted by Emperor Joseph, it was a period of thought control and mutual distrust, the era of Prince Metternich and of the Biedermeier style with its surface calm and its hated secret police: in short, the era of the Vormärz. The position of head of medical education of Austria fell into the hands of a Baron Stifft, an arch-reactionary who during the 40 years of his dictatorship succeeded in removing virtually all eminent or promising men from their positions and replacing them with servile and politically trustworthy nonentities.

The very few men who survived this purge were able to uphold a certain standard in the faculty despite the discouraging atmosphere permeating it. Among them were two skillful and imaginative surgeons, Vinzenz von Kern and Joseph Wattmann, and the obstetrician Lukas Boer who introduced the teaching of obstetrics as an independent branch of medicine and had the courage to expose the dangers of the then fashionable meddlesome practices of his colleagues.

Shortly after 1840 a miracle happened: out of this political and scientific wilderness, almost suddenly, the Second Vienna Medical School rose like a phoenix from the ashes and brought with it the

Golden Age of medicine in Vienna. This time it was not the doing of a great administrator or reformer, nor had the stifling political atmosphere yet begun to clear. It was solely the result of the fortuitous appearance of the constellation of a few men of genius, endowed also with energy, perseverance, and unlimited devotion to their work. They had converged on the capital of the large Austro-Hungarian Empire from various parts of the multilingual monarchy. Their names were Rokitansky, Skoda, and Hebra.

Carl Rokitansky (Figure 8), born in Koeniggraetz in Bohemia, is one of the great pioneers in medicine and, with Giovanni Battista Morgagni (in Italy) and Rudolf Virchow (in Germany), he became the cofounder of pathologic anatomy as the basis for scientific medicine by correlating autopsy findings with the clinical manifestations of the disease. Rokitansky drew his brilliant descriptions and definitions of morbid entities, many of them previously unknown or misunderstood, from about 100,000 autopsies performed during his career. He recorded his vast knowledge in his *Handbuch der Pathologischen Anatomie*, whose first edition appeared in 1842. This widely read text and his personal teaching for over 40 years had direct influence upon the thinking and practice of medicine of two generations, and the impact of his concepts is still felt in pathology today.

At the same time another Bohemian, Joseph Skoda (Figure 9), born in Pilsen, raised the field of clinical diagnosis to astounding heights by making ingenious use of the newly introduced method of percussion (Auenbrugger) and auscultation (Laennec). He checked his physical findings with the aid of his friend and mentor Rokitansky at the autopsy table and was in this way able to develop a new clinical system of the pathology of the heart and lungs. Skoda's description and interpretation of physical findings in chest diseases were so exact that they are as valid and useful today as they were 150 years ago. This pathfinding work found recognition by his contemporaries only slowly and against the stubborn resistance of the medical authorities in power. They disliked Skoda's fancy and time-consuming methods of physical examination as well as what they called his "therapeutic nihilism," particularly when it became known to have lower mortality than their "active methods of treatment" consisting of blood-letting, purges, and emetics. His opponents succeeded in preventing Skoda from obtaining the chair in medicine until 1846, when he was finally



Fig. 8. Carl von Rokitansky, 1804-1878.



Fig. 10. Ferdinand von Hebra, 1816-1880.



Fig. 9. Joseph L. Skoda, 1805-1881.

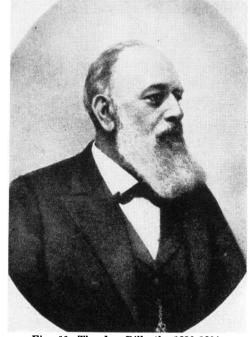


Fig. 11. Theodor Billroth, 1829-1894.

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appointed through the energetic intervention of Rokitansky with the help of Archduke Ludwig.

Another great Bohemian of this era was Johannes von Oppolzer who, at Skoda's recommendation, became the chief of the newly created Second Medical Clinic. In contrast to the essentially anatomical concepts of his colleagues Rokitansky and Skoda, Oppolzer emphasized the disturbance of physiologic function in the pathogenesis of disease. This orientation promoted logically a more positive attitude towards active and individualizing therapy, while at Skoda's clinic the guiding principle was still "primum non nocere": refrain from any action that might interfere with the natural healing power of the human organism.

Also the development of surgery was decisively influenced by the teachings of Skoda and Rokitansky. Franz Schuh, who was professor of surgery, raised the standard of his specialty when he insisted on pathologic evaluation of operative findings. He evoked the admiration of his colleagues when he performed aspiration of pleural and pericardial exudates, the presence of which had been recognized through physical examination.

A new branch of medicine was born when Skoda entrusted his wards of patients with skin diseases (generally referred to as Krätze-kranke) to his assistant Ferdinand von Hebra (Figure 10), a Moravian by birth, with the instruction to study the pathology of the skin. Hebra rapidly developed dermatology to a high level. He described, defined, and classified many skin diseases on clinical, pathologic, and parasitologic grounds, and published a monumental atlas of skin diseases. Hebra succeeded in creating in Vienna an internationally renowned school of dermatology. It remained at the same level under his pupil Moritz Kaposi.

The chairs of anatomy and physiology were also occupied by teachers and scientists of outstanding quality: Hyrtl and Brücke. They were colorful characters who were known often to clash violently in their differing estimation of each other's fields and capacities.

Joseph Hyrtl, a Burgenlander, won admiration as one of the great teachers of anatomy, especially of surgical (topographic) anatomy. His text book passed through 22 editions and remained the Bible of anatomy all over the world for two generations.

Under Ernst von Brücke, who had come from Heidelberg, the teaching of physiology developed from virtual nonexistence to an essential

part of medical education. During the 40 years of his professorship he trained innumerable students in the fast-expanding field of physiology and in methods of physiologic research. In this way he created the necessary balance against the then prevalent anatomical orientation of the Vienna Medical School.

The attitude of the government towards the leaders in medicine had changed completely during this period. Many professors were honored by the emperor with titles and decorations, and were raised to nobility and appointed members of the Upper House of Parliament.

However, even during this splendid period of progress the voices of reaction were not silenced, and the power of entrenched office holders was still strong. A sad, almost incredible illustration of this fact is the story of Ignaz Philipp Semmelweis. As a young doctor Semmelweis, through keen bedside and autopsy observation, recognized the infectious nature and manner of transmission of childbed fever, the killer of thousands of young women at that time. He reported his findings and recommendations to the Society of Physicians in Vienna in 1847 and again, in a monograph, 14 years later. However, he found himself involved in an unequal battle against a solid front of the obstetricians of the faculty. They were outraged by the effrontery of the young Hungarian who tried to discredit their theories and thus undermine their positions. Despite the active support of Rokitansky and Skoda he was forced out of his position in Vienna, suffered a mental breakdown, and died at the age of 47 in an insane asylum. More thousands of women were to die from childbed fever before Semmelweis' concept gained universal acceptance years after his death.

This cruel interlude is evidence that even during the heroic phase of the School, prejudice, inertia and selfishness were still powerful forces that might easily have led to another decline of the medical faculty at the time when the group of ingenious men who had been in the forefront of progress were getting old. Fortunately, these very same men used the weight of their prestige to have the best possible candidates for any opening at the faculty called to Vienna, no matter what their origin or background. Thus it happened that, through Rokitansky's insistence and against violent opposition, Theodor Billroth (Figure 11), a North German of Swedish ancestry, became professor of surgery in Vienna. With him the school of surgery reached its very



Fig. 12. Hermann Nothnagel, 1841-1905.

culmination. Research and practice advanced brilliantly under his leadership. Elaborate animal experiments were carried out and led to revolutionary progress in operations on the larynx, the esophagus, the stomach, and the bowels. The reputation of Billroth's clinic soon made it an international center for training in surgery, and his assistants were much in demand for leading positions at many universities in Europe.

Billroth, as a teacher, pioneer in surgery, and powerful personality, stood out like a giant within the medical faculty. Fortunately, the other branches of medicine were also represented by eminent men during his time.

To mention only a few:

Hermann Nothnagel (Figure 12), born in Berlin, was one of the last men to master the entire knowledge in internal medicine and neurology of his time. He made significant contributions, especially in the field of gastroenterology and pharmacology, and he had the reputation of being one of the greatest teachers of this period. From Nothnagel's staff came many excellent internists and neurologists who en-

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hanced the reputation of Vienna as a medical mecca around the turn of the century. But outside his scientific achievements, Nothnagel will always be remembered as a fighter for the highest professional standards and as the fearless defender of human rights against the hydra of political anti-Semitism that began to raise its ugly head during his time.

Salomon Stricker, the first professor of experimental pathology, became a legendary figure because of his unorthodox teaching methods and his fascinating lectures during which he demonstrated animal experiments.

Adam Politzer, founder of a prominent school of otologists, developed his field from simple beginnings and wrote a textbook of otology that became a classic.

Hans Horst Meyer, born in East Prussia, was one of the founders of experimental pharmacology and thereby one of the pioneers of rational therapy. His work contributed enormously to the clarification of the action and the value of numerous drugs that had previously been used empirically. Meyer's textbook, *Experimental Pharmacology*, remained the standard text for several decades.

Theodor Meynert, professor of neurology and psychiatry, initiated the study of microscopic changes of the central nervous system, and his successor, Richard von Krafft-Ebing, was the first psychiatrist who ventured to delve into the problems of the psychology of sexual life and its deviations.

The life and work of these men whose activities extended toward or beyond the turn of the century, led into what, for many of us, has been contemporary medicine, the age of increasing specialization. Until World War I, Vienna remained one of the foremost centers of medicine, recognized as a school with a remarkable tradition, staffed with eminent experts, who were highly respected as teachers, investigators, and practitioners. Some of the men whose teachings made a lasting impression upon the older generations of living Vienna graduates were the anatomists Emil Zuckerkandl and Julius Tandler, the pathologists Richard Paltauf and Jakob Erdheim, the surgeons Anton von Eiselsberg and Julius von Hochenegg, the ophthalmologist Ernst Fuchs, the orthopedist Adolf Lorenz, the radiologist Guido Holzknecht, the psychiatrist Julius Wagner-Jauregg, the neuropathologist Constantin von Economo, the gynecologist Ernst Wertheim, and the pediatrician Clemens von Pirquet, the father of the science of allergy.

These men, of a caliber high above average, were able to maintain the reputation of the Vienna Medical School in its increasingly difficult competition with rival schools abroad. All this glory, alas, came to an abrupt end with the outbreak of World War I and the postwar dissolution of the once powerful and wealthy Austro-Hungarian empire.

The small new Austria and its overgrown capital Vienna were too poor to provide the ever-increasing expenses for facilities and salaries of a first-class medical school, and Vienna could no longer attract outstanding scientists from abroad. It was therefore the difficult task of the surviving members of the prewar faculty to maintain its reputation. Perhaps the only prominent newcomer from abroad was the Dutchman Karel Frederick Wenckebach, who promoted the development of cardiology in Vienna. Most of the vacant chairs were filled with pupils of their former occupants, some of them recognized leaders in their field, such as Ernst Peter Pick in pharmacology, Otto Poetzl in neuropsychiatry, and Heinrich von Neumann in otology. Many other appointments made during that period, however, were based more on political expediency than on scientific qualifications. Thus many first-rate candidates for leading positions were not appointed, as for instance the gynecologist and pioneer in endocrinology Josef von Halban, or the innovator of fracture treatment Lorenz Boehler. Many others went abroad and found recognition, among them Carl Landsteiner, the discoverer of the blood groups and Nobel prize laureate, Béla Schick, whose diphtheria skin test had a profound impact on the theory and practice of immunization, Paul Klemperer, the pathologist who originated the concept of connective tissue disease, and Robert Barany, who received the Nobel prize for his work on the physiology and pathology of the organs of equilibrium.

In this period between the two World Wars, in which minor lumina dominated the medical faculty, there lived and worked in Vienna one man whose ideas and teachings had developed outside the official circle of the faculty but were finding a resounding response throughout the civilized world: Sigmund Freud, the revolutionary thinker and creator of psychoanalysis. While the faculty pointedly ignored him and some of its members publicly derided his concepts, Freud stayed on in Vienna and thereby made it the focus of the steadily increasing international attention to the new science. He no doubt attracted personally

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more disciples, students, and patients to Vienna than any other single clinician in official position at that time.

The continuing deterioration of the level of the medical school in the pre-Nazi era and its disintegration during the Nazi regime and World War II are matters of common knowledge.

After the war little was left but shambles of an old tradition. Out of these and against tremendous odds, a few courageous and devoted men, such as the highly respected internist Ernst von Lauda, tried to rebuild the Vienna Medical School. With total disruption of the continuity of teaching staff and students this was, indeed, a Herculean task. During this relatively short period of reconstruction, no personalities of exceptional rank as teachers or scientists have as yet emerged and no scientific work of outstanding significance has been published. It may take another constellation of the Rokitansky-Skoda-Hebra type to guide the Medical School to new heights.

No one should try to predict the future. The age of "great medical schools" may be over altogether. The leveling influence of easy and rapid communication throughout the scientific world and the free intercourse and exchange of teaching and research staffs of universities will make it increasingly unlikely that any one medical school as such can be greatly superior to others. However, whatever differences there will always be between various schools will depend on the quality of the physical facilities as well as the ability of the teaching staff. The quality of the facilities will necessarily depend on the existing economic conditions, the interest, and the generosity of the community. The quality of the teachers, on the other hand, will depend less on available funds than upon the principles that determine their selection.

With these facts in mind, can we draw any lesson from the history of the Vienna Medical School as to its quality in the future? The rise of the School has in all its phases been associated with times of economic prosperity, with a liberal and progressive atmosphere and with a far-seeing, unprejudiced, and independent policy in the selection of the teaching staff.

Conversely, the School has gone down whenever the country was poor, the atmosphere oppressive, and the choice of men for leading positions dictated by political, nationalistic, or religious motives. The pool of talents from which a small country can draw its leaders naturally is limited. The future can therefore look bright only if every

opportunity is given to the most gifted men and if, at the same time, the horizon is searched constantly for new stars. Apathy, jealousy, bias, and the unwillingness to part with the comfortable past have done tremendous harm to the Vienna Medical School again and again, and they would do the same in the future.

In the best tradition of the Vienna Medical School there has been devotion to research by its members and great pride in their discoveries but, at the same time, there has been the firm resolution to remain first and foremost a school in which students are to be educated to become good doctors. These principles must remain the hallmark of the School if it is to regain its position among the best institutions of medical learning of the world.

We salute the Vienna University tonight and wish its Medical School a future true to the ideals of its glorious past.

## ACKNOWLEDGMENTS

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